

Claims

1. Workpiece with a substrate of ceramic, metal or polymer, the substrate having a surface which is conditioned to form a stable connection with a polymer and which is provided with a silica layer and, on top of this, with a silane coupling agent,
5 characterized in that
 - 10 - the substrate, the silica layer and the silane coupling agent are sterile, and
 - on top of the silane coupling agent, a preserving protective layer which is sterile and/or can be sterilized after polymerization is provided as the activatable first component of a multi-component adhesive which at the 15 time of use is formed by addition of at least one further adhesive component.
2. Workpiece according to Claim 1, characterized in that the sterile and/or sterilizable preserving protective layer is made of polymethyl methacrylate.
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3. Workpiece according to Claim 1, characterized in that the sterile and/or sterilizable preserving protective layer is made of BisGMA.
4. Workpiece according to Claim 1, characterized in that the preserving 25 protective layer is made of epoxy resin.
5. Workpiece according to Claim 1, characterized in that the preserving protective layer is made of phenolic resin.
- 30 6. Workpiece according to one of the preceding claims, characterized in that the sterile and/or sterilizable preserving protective layer has a thickness of < 100 µm.
- 35 7. Workpiece according to one of the preceding claims, characterized in that the substrate has a surface conditioned to form a stable connection to a polymeric adhesive.

8. Workpiece according to one of the preceding claims, characterized in that it is used in moist warm media.
- 5 9. Workpiece according to one of the preceding claims, characterized in that it is used as an implant or prosthesis or as a component of an implant or prosthesis in medicine.
- 10 10. Method for producing a workpiece according to one of the preceding claims, in which the surface of the substrate is cleaned, a silica layer is then applied using a high-vacuum evaporation unit and is then wetted with a silane coupling agent,
15 characterized in that
15 after the substrate surface has been cleaned, carboxyl groups are generated thereon by means of a low-pressure plasma process, and
20 in order to preserve the surface which has been treated in this way, with the silica layer and the silane coupling agent, until further processing, a sterile and/or sterilizable preserving protective layer is applied as the activatable first component of a multi-component adhesive which at the time of use is formed by addition of at least one further adhesive component.
- 25 11. Method for producing a workpiece according to Claim 10, characterized in that the vapour-deposition of the silica layer is effected in a reproducible manner using a shutter system.
- 30 12. Method for making use of a workpiece according to one of the preceding claims,
30 characterized in that
35 after sterile intermediate storage, the workpiece is first provided on its conditioned surface with a monomeric adhesive component in order to activate the protective layer, and a polymeric adhesive component is then

applied on top of this, these two adhesive components forming a multi-component adhesive together with the protective layer.